

## SHOCK

1. The Shock Syndrome is defined as inadequate tissue perfusion. Signs and symptoms in adults may include, but are not limited to:
  - a. Pulse over 120 with a systolic BP less than 90 or narrowed pulse pressure less than 20
  - b. Skin cold and clammy (may be absent in early septic shock)
  - c. Mental status: confusion, restlessness, anxiety, and lethargy
2. Classification of Shock: Shock may be classified as either a rate, volume, or pump problem.
  - a. Rate: Refer to bradycardia or tachycardia protocol.
  - b. Volume:
    - i. Maintain ABC's
    - ii. Cardiac **Monitor**
    - iii. Keep patient warm
    - iv. Consider trendelenburg
    - v. Two large bore **I.V.**'s, **fluid challenge**, may repeat as needed (500cc adult, 20cc/kg for pediatric, may repeat 3 times)
    - vi. **Contact Medical Control**
    - vii. Rapid transport to closest appropriate hospital
  - c. Pump:
    - i. Maintain ABC's
    - ii. Cardiac **Monitor**
    - iii. Keep patient warm
    - iv. Two large bore **I.V.**'s, TKO
    - v. Be prepared to intervene in the following ways
      - a) **Fluid challenge**
      - b) **Epinephrine**
    - vi. **Contact Medical Control**
    - vii. Rapid transport to closest appropriate hospital
  - d. Medical Control Options:
    - i. **Fluid challenge 500cc LR, or .9 NS IV (pediatric dose: 20cc/kg up to 500cc)**
    - ii. **Epinephrine** 1:10,000 0.5-1.0mg IV, (ET 2 times IV dose) (pediatric dose: 0.01mg [0.1cc] IV/IO) (ET 10 times IV dose)
    - iii. With severe hypotension use **Epinephrine** 1:1000 drip. Mix 2 mg in 1 liter of NS = 2 mcgs/ml, (0.001 – 0.1 mcg/kg/minute). Usual range 2 – 10 mcgs/minute (60-300 minidrops/min or 10 – 50 regular drops/min) titrated to raise the systolic blood pressure to 70 – 100 mm Hg.
    - iv. **Needle aspiration** of tension pneumothorax if present in obstructive shock